

Amendment  
Serial No. 10/783,804

Docket 5000-1-526

### REMARKS

Reconsideration of the above-identified application in view of the amendments to the claims and the following remarks is respectfully requested. Claims 1, 3, 4, 8, 9, 10, 11 and 12 remain pending herein. Claims 2, 5, 6 have been canceled without prejudice or disclaimer in this amendment, and claim 7 was previously canceled. Claim 1 has been amended to include the subject matter of claims 2 and 6, claim 8 has been amended into independent form to include the subject matter of claims 1, 2 and 5. Claims 3, and 9-12 have been amended to conform to the amendments to claims 1 and 8 and the cancellation of claims 2, 5 and 7. Claims 1 and 8, as amended, are independent claims.

Claims 1-5 and 8-12 stand rejected under 35 USC § 103(a) as allegedly being obvious over Farmer (US 7,146,104) in view of Bohn *et al.* (US 5,311,344) ("Bohn"), and in view of Spurgeon (*Ethernet: The Definitive Guide, chapters 9 and 10*). Claim 6 stands rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Farmer in view of Spurgeon. Applicant respectfully traverses these grounds of rejection for the reasons indicated herein below.

Claim 1 of the present invention recites in part that the transmission of an Ethernet system takes place by a single laser diode and photodiode. Applicant respectfully submits that the aforementioned cannot be easily construed from the recited time division multiplexing (TDM) for reasons to be discussed herein below.

When a broadcasting signal is combined with an Ethernet communication data signal (claim 1, line 3) by using TDM, the following problems occur. In particular, when an optical line terminal (OLT) combines the broadcasting of several channels with an Ethernet signal for transmission using TDM and an optical network unit (ONU) divides

Amendment  
Serial No. 10/783,804

Docket 5000-1-526

the combined signal, image signals can be reproduced without problems because they are unidirectional signals. However, because the Ethernet signal has different paths for a downstream signal from the OLT to the ONU and an upstream signal from the ONU to the OLT, normal Ethernet communication becomes impossible.

For example, an Ethernet PHY does not output a signal to a PHY Tx if no signal is input to a PHY Rx. For this reason, a PHY does not operate normally in an interval where the Ethernet signal for the downstream signal is not transmitted during transmission, resulting a failure to achieve Ethernet communication.

To overcome this problem, in the presently claimed invention, a signal is separately provided to a reception terminal for the normal operation of the PHY 35 of FIG. 3, or the PHY 45 of FIG. 4. For example, in order to input a signal to a receiver of the PHY 25 of FIG. 3, an FX signal provided to the LD 12 is divided before being provided to the LD 12.

Accordingly, Applicant respectfully submits that combination of Farmer, Bonn and Spurgeon fail to disclose or suggest the aforementioned problem, nor render the solution obvious in view thereof; nor would any of the present claims have been obvious to an artisan at the time of invention over said combination of references. Nor would the combination of elements, as recited in the claims, have been obvious as being within the ordinary level of skill in the art (*KSR International v. Teleflex*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007)).

With regard to the combination of Farmer, Bohn and Spurgeon, the combination fails to disclose, suggest or otherwise render obvious any of the present claims as none of references, alone or in combination discloses that a signal is separately provided to a

MAR 11 2008

Docket 5000-1-526

Amendment  
Serial No. 10/783,804

reception terminal for normal operation of a PHY. Applicant also respectfully submits that the aforementioned is not an engineering design choice.

Accordingly, independent claims 1 and 8 are not obvious over any combination of references. Reconsideration and withdrawal of these grounds of rejection are respectfully requested.

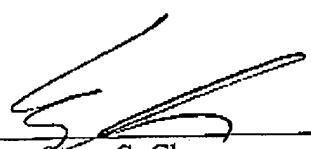
The other claims in this application are each dependent from independent claim 1 discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested. It is not believed that any additional fee are due at this time. However, please credit any overage or charge any deficiency to Deposit Acct 502-470.

Should the Examiner deem there are any issues that may be best resolved by telephone, please contact Applicant's undersigned attorney at the number indicated herein below.

Date:

3-11-08



By: Steve S. Cha  
Attorney for Applicant  
Registration No. 44,069

Mail all correspondence to:  
Cha & Reiter, LLC  
Steve S. Cha  
210 Route 4 East, #103  
Paramus, NJ 07652  
Telephone: (201) 226-9245  
Facsimile: (201) 226-6246